

The CPWF's Monitoring and Evaluation (M&E) Strategy



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Introduction

This document describes the CPWF's integrated approach to M&E (including impact assessment) building on M&E practice and experience from Phase I, Phase II requirements and recommendations from the External Review.

Definition of Terms

The CPWF follows the OECD's (2002) definition of monitoring and evaluation.

Monitoring is a continuous function that uses the systematic collection of data on specified indicators to provide management and the main stakeholders of an ongoing development intervention with indications of the extent of progress and achievement of objectives, and progress in the use of allocated funds (OECD 2002, p. 27). According to this definition, monitoring has much to do with information management, which underlines the need for a close working relationship between Information Management and Evaluation in the CPWF.

Evaluation is the systematic and objective assessment of an ongoing or completed project, program, or policy, including its design, implementation, and results. The aim is to determine the relevance and fulfillment of objectives, development efficiency, effectiveness, impact, and sustainability. An evaluation should provide information that is credible and useful, enabling the incorporation of lessons learned into the decision-making process of both recipients and donors (OECD 2002, p. 21).

Impact assessment involves the estimation of benefits and costs of projects and programs either before they are implemented (*ex-ante* IA) or after their completion (*ex-post* IA). Impact Assessment is an important subset of Evaluation.

Evaluator is someone who carries out M&E and/or impact assessment.

Evaluative Culture. An organization can be said to have an evaluative culture when it engages in self-reflection and self-examination, seeks evidence, makes time to learn and encourages experimentation and change (Mayne, 2008). Hence an evaluative culture supports the CPWF core value of adaptive management. Adaptive management itself is a key plank in the CPWF's overall impact strategy and logic model (see Figure 1). Part of the job of BDC coordination projects, and the CPWF management, is to build an evaluative culture in the CPWF Community.

Impact pathways, theory of change; program theory; result-chain models. All four terms describe similar concepts that are central to the proposed CPWF M&E strategy. The shared concept is that for projects and programs to be fundable, implementable or evaluable, there needs to be causal logic, with sound theoretical underpinnings, that links research activities to the desired changes. Evaluators call this logic 'program theory' or 'theory of change'. In the CGIAR the causal logic is called *a project's 'impact pathways'*. Project and program causal logic is articulated by frameworks, diagrams and tables called for example result-chain models, logic models, log-frames and outcome logic models. The visual representation of the logic is usually accompanied by a narrative description. The evaluation of a project or program against its program theory is called *program theory evaluation*. Participatory Impact Pathways Analysis ([PIPA](#)) – the evaluation of a project's progress along its impact pathways – is an approach to carrying out program theory evaluation that includes the stakeholders affected by the project or program (Douthwaite et al. 2007). Program theory evaluation, or theory-driven evaluation as it is also called, is increasingly seen as relevant for research projects which are expected to demonstrate

how they expect to contribute to development outcomes. Outcome Mapping and Keystone’s Impact Planning, Assessment and Learning (IPAL) method are some examples of approaches to carrying out program theory evaluation.

A program theory is "an explicit theory or model of how the program causes the intended or observed outcomes" (Rogers et al. 2000 p5)

“All programs [and projects] are based on explicit or implicit theory about how the intended program outputs and impacts are to be achieved and the factors constraining or facilitating their achievement” (Bamberger et al. 2006 p. 39)

The Proposed M&E Strategy

M&E within the CPWF provides information and analysis to fulfill two programmatic needs:

- **Accountability**, i.e. **information and analysis** to ensure and demonstrate accountability. Donors need to know that their money is well spent, and achieving the outcomes they expect. CPWF management, Management Team (MT) and Basin Leaders (BL) need to know that projects are carrying out research in line with the agreed Basin Development Challenges (BDC) impact pathways.
- **Adaptive management** – the ability for the CPWF to **learn from experience** and make early identification of opportunities, threats and unexpected consequences together with appropriate response from, and redefinition of, research agendas.

Evaluation takes place at two levels: the CPWF Program level and the Project and Topic Working Group (TWG) level. The two levels are described in turn.

Program-Level M&E

The CPWF’s program-level M&E strategy responds to the External Review panel recommendation (19):

“The CPWF establishes a new, realistic program vision and mission statement and a set of internal program objectives that have a strong causal link with program activities, i.e. the objectives can be reached primarily by the program alone. Standard results chain models should be applied to link program activities to these objectives. The degree to which these objectives can be reached should be used as one measure of success for the CPWF, e.g. based on a classical logframe approach.”

The results chain “logic model” proposed for evaluating the CPWF-as-a-program is shown in Figure 1. It conveys the CPWF’s overall theory of change and does not go into the specifics of what activities will be carried out in which basins to achieve which outputs and outcomes. This is evaluated by Project-and-TWG-level M&E - discussed in the next section – with its results feeding into Program-level M&E.

Figure 1: Logic Model describing CPWF's program-level theory of change to provide a basis for program-level evaluation (adapted from Trochim et al., 2008)

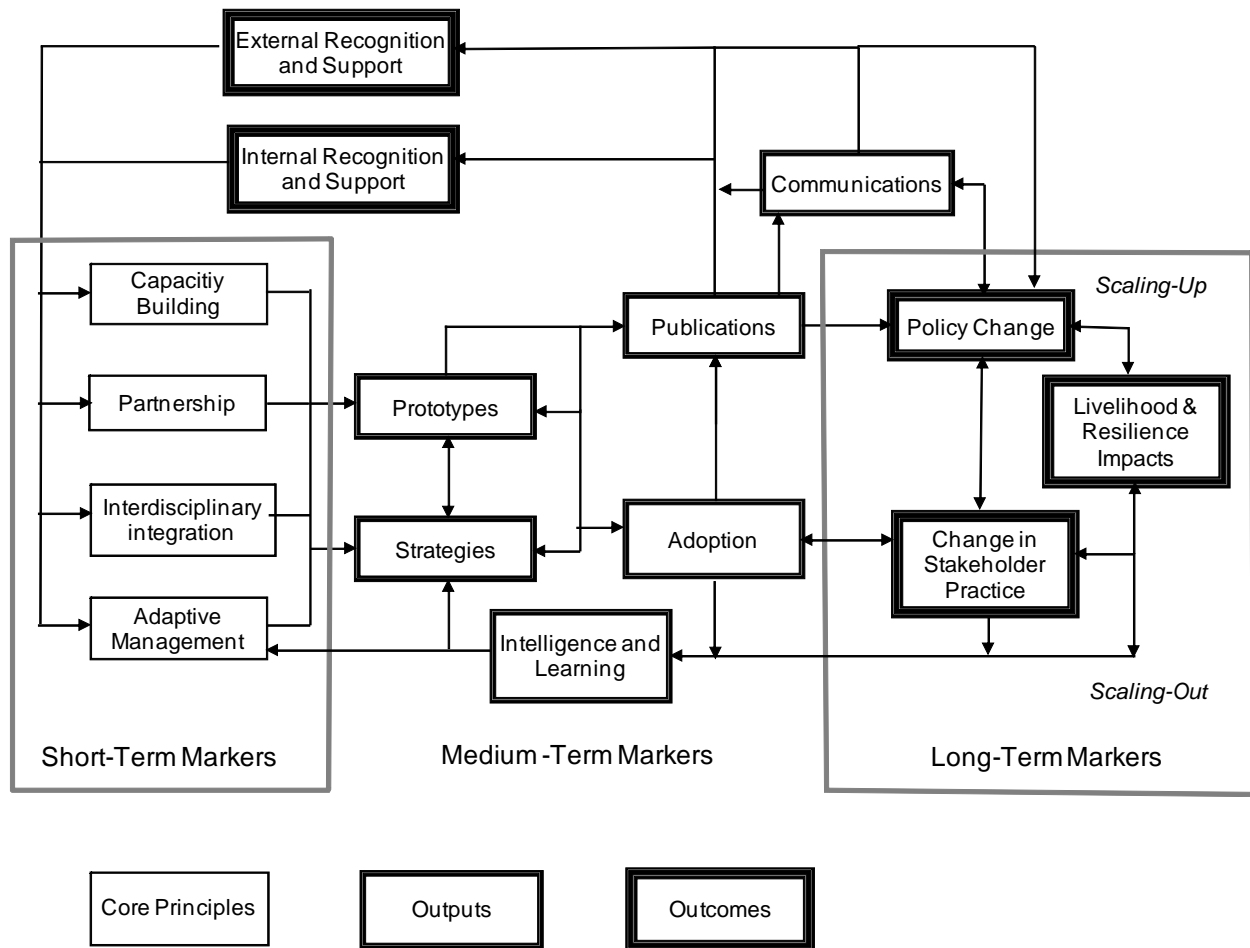


Figure 1 begins with the CPWF's core principles that guide the way the CPWF works and form its institutional culture, including the development of an evaluative culture. The model shows how these values and culture influence the outputs the CPWF produces, which in turn influence the development outcomes achieved. The model identifies short-, medium- and long-term markers of:

- Programmatic improvement based on adherence to core principles and development of institutional culture,
- Production of outputs,
- Generation of outcomes, respectively.

The marker timeframe (i.e. short- medium- or long-term) refers to how long it likely to take before major progress is seen with respect to the markers.

Backward linkages show feedback loops that characterize an evolutionary and eventually self-sustaining logic (exit strategy).

Impact Narrative for the CPWF Theory of Change

Visual representation of program theory is usually accompanied by a narrative explain it, as noted above. The following narrative describes the causality we hypothesize links together the markers in Figure 1 – in other words it describes the arrows that link the boxes. In the narrative the markers – the contents of the boxes – are written in italics.

Core principles underpinning the way the CPWF does business

The CPWF's core principles (shown in the single border boxes) guide how the program, the basin development challenges and the topic working groups function. *Capacity building* and *partnership* underpin strategies to broker relationships between stakeholders within and across basins. *Interdisciplinary integration* is a principle underpinning scientific partnership, with particular emphasis on linking agricultural scientists with water scientists on one hand, and biophysical and social scientists on the other. Research integration occurs through topic working groups, and through addressing commonly-agreed sets of BDC impact pathways (derived using PIPA, see below). Topic working groups are communities of practice of researchers tackling similar research questions in different basins who interact for mentoring, improving their collective practice, carrying out synthesis (see below) and to ensure quality control.

Adaptive management – a structured, iterative process of optimal decision-making in the face of uncertainty – is a core principle guiding how the BDCs, TWGs and the Program-as-a-whole tackle uncertainty and emergent opportunity. Figure 1 shows that *adaptive management* is supported by *intelligence and learning*. Intelligence refers to the Program's, the BDCs' and the TWGs' ability to discover and make sense of the environment in which they operate. This includes work on understanding how global drivers of change, for example climate change, are likely to play out at different scales within basins. Specification of impact pathways¹ for the BDCs, combined with regular monitoring and reflection as they unfold, will provide a common framework for *learning* about how research does, and does not, lead to development outcomes. BDCs, and their component projects, will be evaluated based on their progress along their impact pathways, as well as the quality of their experiential learning and the decisions they make as a result (i.e., on the quality of their adaptive management). *Adaptive management* implies that the BDCs and their projects will depart from their original impact pathways and work plans. These changes will be allowed, even expected, by CPWF management. Nevertheless, the changes will need to be justified, and described to build learning for the team and other BDCs. The iterative process of specifying impact pathways and revisiting them based on what has been learned will provide the necessary justification, if done properly. Capacity building and mentoring will be required to ensure quality-of-process.

Producing outputs and outcomes

Through employing all four core principles in its research-for-development work in basins, the CPWF produces outputs. These include the development of *prototypes* and the *strategies* to use them. *Prototypes* are 'best bet' research outputs that are intended for use by 'next users' in appropriate contexts. Next users are the intermediaries (e.g., extension workers) who work with the final users (e.g., farmers and fisherfolk). The *prototypes* include technology (e.g., germplasm, rainwater harvesting techniques), methods (e.g., learning alliances), models, databases and policy recommendations.

¹ BDC impact pathways will be specified in the BDC inception workshops. They describe the changes in stakeholder practice required to achieve the basin development challenge, and the strategies and prototypes that the BDC research will use to bring these changes about. As such they represent hypotheses to be tested as part of BDC implementation. Learning resulting from testing contributes to adaptive management.

Prototypes are designed to achieve the CPWF's overall objective of "increase the productivity of water for food and livelihoods, in a manner that is environmentally sustainable and socially acceptable, and alleviates poverty for all disadvantaged groups". *Strategies* are the ways that the research is carried out to develop the *prototypes* such that next users and end users adopt, adapt and use them. If successful, work to develop *prototypes* and *strategies* leads to *adoption* of technologies, knowledge and new institutions.

CPWF research is subject to scientific peer review through *publication*. At the same time, *publication* and *communication* of research results and early impact influences *policy change* that helps create an enabling environment for *adoption* of technology, knowledge and institutional change. *Policy change* provides an added impetus for *changes in stakeholder practice* that result from *adoption*. *Publications* and *communications*, through constructive peer review and other processes, build *internal recognition and support* (internal to the CPWF) for the work being done within the CPWF participating organisations. In the same way *external recognition and support* builds amongst the wider investor and policy-making communities, that in turn influences *policy change* and greater institutionalisation of and funding for the CPWF's work. Recognition and support also develops through people's positive experiences of the CPWF's way of working and the results it produces compared to 'business-as-usual'. It is through such positive, self-reinforcing feedback loops that the CPWF expects to enhance capacity to innovate and contribute to the improved resilience of the food and water innovation systems in which it works.

Using the CPWF's Program Theory as a basis for M&E

Evaluation of the CPWF-as-a-program, and individual BDCs will involve measuring progress in relation to the markers and demonstrating the causality implied in the arrows that link them.

Multiple methods would be used for measuring progress relative to the markers. The provisional intention is to use three in combination:

- 1) Annual self evaluation survey of CPWF staff, BLs, TWG leaders and principle project scientists. The survey would be based on both closed- and open-ended questions such as "How do you assess the performance of the TWG / BDC / the program with respect to capacity building on a 1 to 5 scale? Please comment."
- 2) Annual peer-review carried out using a similar survey tool of people collaborating with BDC research and engaged in TWGs.
- 3) Measurement of indicators of progress relative to the markers – see Table 1. Information required would be requested as part of 6-monthly project, BDC and TWG reporting. Ex-post impact assessment will be one of the approaches used to measure outcomes.

Table 1: Potential indicators for measuring programmatic performance [take as indicative not final]

| Marker | Potential Indicators |
|----------------------------------|---|
| Capacity Building | # of students supported and involved # of students graduated (BSc, MSc, PhD) # of people trained |
| Partnership | # of formalized collaborations e.g. MoUs # of collaborations Network metrics (e.g., no. of partners, density of links, change over time) Survey / interview on the quality of the partnership and improvements |
| Adaptive Management | # of changes made to original implementation plans # of processed learning resulting in change to project implementation plans # of people involved in reporting, monitoring loops Evaluation of reflection events by participants |
| Trans-disciplinary integration | # of different disciplinary researchers working together in a BDC # of publications with authors from different disciplines # of interactions (meetings, joint publications, etc.) across basins and through the topic groups |
| Communications | # communication outputs produced # Google hits per output Feedback on produced and disseminated materials, e.g. web site, newsletter, e-mails |
| Publications | # of Peer Reviewed (PR) publications (excluding ISI journal papers) per Scientist # of other types of publications (to be specified) |
| Prototypes | # completed milestones relating to prototype development |
| Strategies | # completed milestone relating to strategy development |
| Adoption | # of pilot sites established Rate and extent of adoption and adaptation |
| Internal recognition and support | % of articles that properly acknowledge CPWF involvement Measures of CPWF culture change [<i>needs some thought</i>] |
| External recognition and support | CPWF funding levels # press articles mentioning CPWF research |
| Policy changes | # of policy changes to which CPWF research contributed (from IA) |
| Livelihood and resilience impact | World Bank indicators, like Health, nutrition, income, level of education, etc. (from IA) |

The results from the three methods would then be integrated into a single measure per marker, comparable year to year.

Linking the CPWF logic model to the program's objectives

The CPWF has developed a new mission statement:

“To help develop more prosperous and resilient agricultural societies by improving access to water, and the ways in which it is managed and used.” (p. 2, CPWF MTP 2009 – 2011)

The CPWF's overall objective, as already given above, is:

“To increase the productivity of water for food and livelihoods, in a manner that is environmentally sustainable, socially acceptable, and alleviates poverty for all disadvantaged groups”. (ibid)

The CPWF will achieve its overall objective both by the interventions directly implemented by its basin development challenges, and the interventions it indirectly contributes to through publishing, influencing decision-making and changing the way food and water research is carried out within and beyond its target basins.

Below are the CPWF's specific objectives and the logic model markers that allow evaluation of their achievement:

- To use water and food productivity research to generate practical knowledge that will yield tangible development outcomes for the poor.
 - Markers: Evidence of *Prototypes, Strategies, Adoption, Change in Stakeholder Practice, Policy Change, Livelihood & Resilience Impacts* to which the CPWF has contributed
- To ensure that research in complementary sectors (e.g. agriculture and water) is better integrated to improve the relevance and adoptability of scientific research, and to focus research solutions in ways that will better achieve developmental impact.
 - Markers: *Partnership and Interdisciplinary Integration* and evidence of causal links that show that these new ways of working contribute to development impact.
- To foster a more effective and integrated process of collaboration in water-food research among CG Centres, and between Centres and other research partners.
 - Markers: *Partnership and Interdisciplinary Integration* and evidence of causal links that show that these new ways of working contribute to development impact (i.e., ditto above)
- To improve the partnerships between the research community and development institutions (including policy-makers and NGOs) over issues of food and water productivity.
 - Markers: *Partnership* and evidence of causal links that show that working in partnership contributes to development impact.

Note that evaluating whether the CPWF is achieving its objectives depends on showing causal linkages between the short-, medium- and long-term markers. This will require monitoring all markers, not just these listed above.

The proposal for Program-Level M&E just described pulls together performance information from the TWGs and the BDCs and provides the analysis that the CPWF MT and Secretariat need to adaptively manage the CPWF-as-a-program. It will also let BLs know how their BDC research programs are performing year on year and in comparison to other BDCs.

On the other hand, BLs and TWG leaders also need to know whether their projects and TWGs are delivering on agreed plans, funds are being properly spent and whether adjustments are necessary based on emerging opportunities and threats. Hence a Project-and TWG-level M&E system is needed to provide this analysis, as well as to feed data into Program-level M&E. Such a system is described in the next section.

Project-and-Topic Working Group-Level M&E

The following description is of a system for M&E of BDC projects. It is assumed that similar tools and approaches would be used for the evaluation of TWGs.

Building on Phase I

The proposed project-level M&E system will be a stream-lined and improved version of the system currently being piloted in the Second Call projects. As in Phase I, project leaders will be expected to

produce six-monthly progress and financial reports, which if approved trigger their next payment. Progress reports will report against delivery of agreed outputs identified a milestone plan embedded in a Gantt chart that will be part of the project contractual document.

In Phase I, the milestone plans largely related to the production and delivery of research outputs. They included little on outreach, communication or network building project staff and key stakeholders thought necessary to ensure uptake and use of research outputs. Indeed most projects did not explicitly think through their impact pathways, beyond logframes, until they attended an impact pathways workshop, well after contracts were signed and milestone plans agreed. In Phase II, in contrast, impact pathway thinking comes much earlier.

Project M&E begins with BDC Inception Workshops

In Phase II the CPWF will support basin research programs designed at tackling pressing basin development challenges (BDCs). Each BDC research program is designed around a coherent and self-reinforcing set of impact pathways identified through stakeholder consultations and experience from Phase I. The design of BDC research programs also involves the packaging of research into projects, followed by a call for project proposals.

Once projects have been awarded, BDC Inception Workshops will be held so that project staff and key partners can revisit and detail the BDC impact pathways identified in the call for proposals. In the CPWF, impact pathways are generally described in an outcomes logic model (see

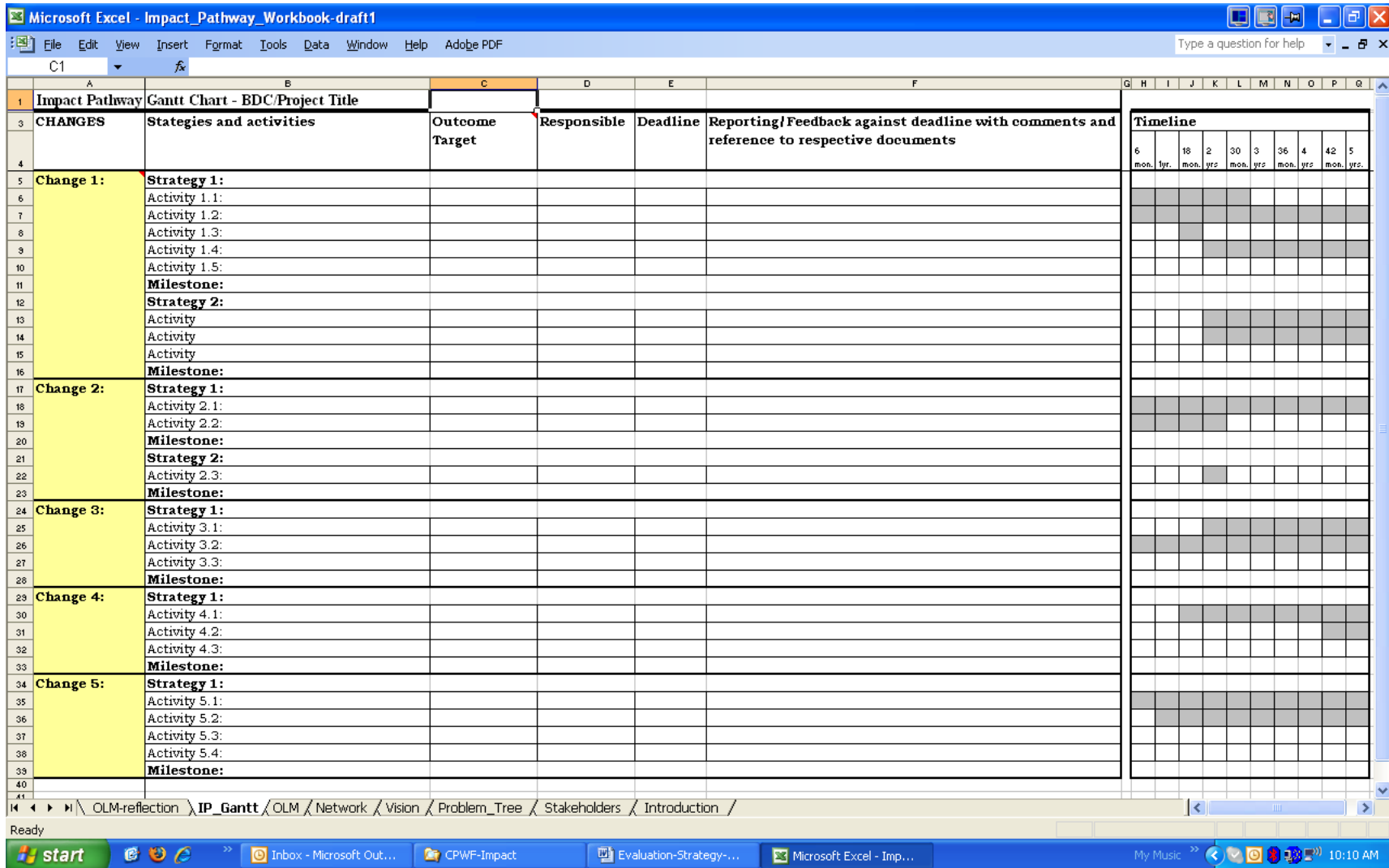
Table 2). Each row of the OLM describes an impact pathway. Each row describes a change in stakeholder practice thought necessary to help tackling the BDC, the corresponding change in actor knowledge, attitude or skills necessary for the change to happen and the research strategies and prototypes that the projects will use to bring both these sets of changes about.

|

Table 2: Outcomes Logic Model used to describe impact pathways

| Actor or actors | Desired change in actor practice | Required change in actor KAS for change to happen | Project strategies and prototypes for bringing about changes |
|-----------------|--|---|--|
| | <div style="border: 1px solid black; background-color: #ADD8E6; padding: 5px; display: inline-block;">Impact Pathway 1</div> | | |
| | <div style="border: 1px solid black; background-color: #ADD8E6; padding: 5px; display: inline-block;">Impact Pathway 2</div> | | |

Figure 2: A screen-capture of the Excel spreadsheet used to link changes, strategies, outcome targets with activities, milestones, responsible actors and a timeframe



Once impact pathways are developed and agreed, the next step in the workshop will be to develop an M&E plan for each project. The steps are:

- 1) Identify outcome targets for each impact pathway that describe the desired change in actor behaviour in a manner that is SMART – specific, measurable, attributable, realistic and timebound, but also optimistic. The outcome targets should serve as “stretch objectives” that give project staff something to aim at.
- 2) Milestones that mark progress towards achieving the outcome target in terms of delivery of outputs and evidence of their uptake and use.
- 3) Create a Gantt chart similar to

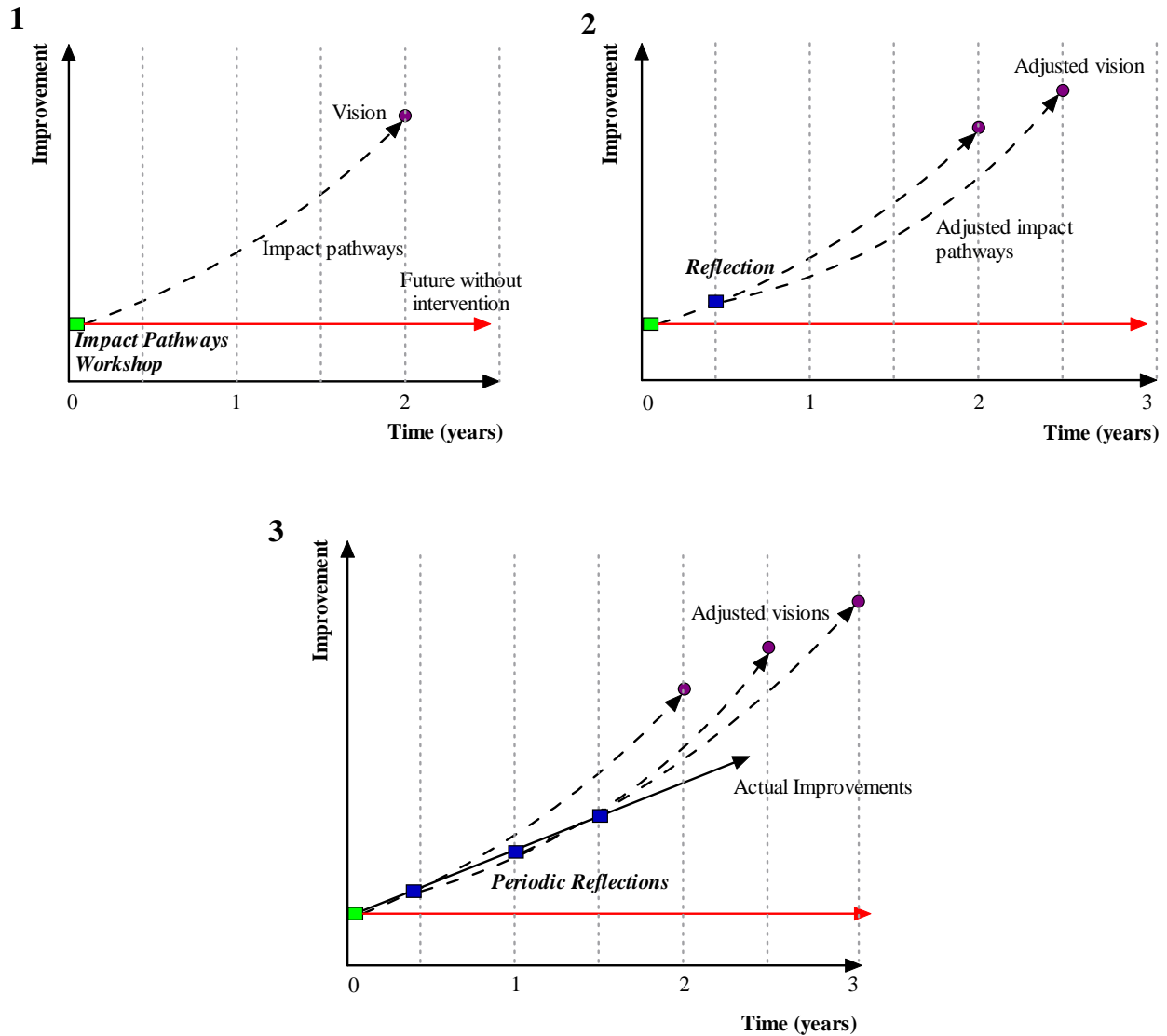
4) Figure 2 that describes the activities required to implement research strategies

Reflection and Adaptive Management

The milestones identified in the M&E plans will be part of the final project contracts. However, given that adaptive management is a CPWF core principle, projects will be allowed to negotiate changes to their milestones and budget lines based on evidence of the need for change. This justification will come in part from regular project reflection on its contribution to the overall BDC impact pathways. The BDC coordination project will be responsible for organizing BDC-level meetings and providing necessary support to project M&E. The reflection on progress along BDC impact pathways, and subsequent changes to them (together with changes to associated milestones and outcome targets), can be understood as follows:

1. During the BDC Inception Workshop, participants develop a shared view of where they want to be in two years' time, and describe impact pathways to achieve that vision. The BDC projects then implements strategies, which lead to changes in KAS and practice of the key stakeholders.
2. A workshop is held six months later to reflect on progress. The vision is changed to some extent, based on what has been learnt, the outcome hypotheses are revised when necessary and corresponding changes are made to project activities and strategies. New milestones are set for the next workshop.
3. The process continues. The BDC research program never achieves its vision (visions are generally used to motivate and stretch), but it does make real improvements.

Figure 3: Reflecting on progress along impact pathways (based on Flood, 1999)



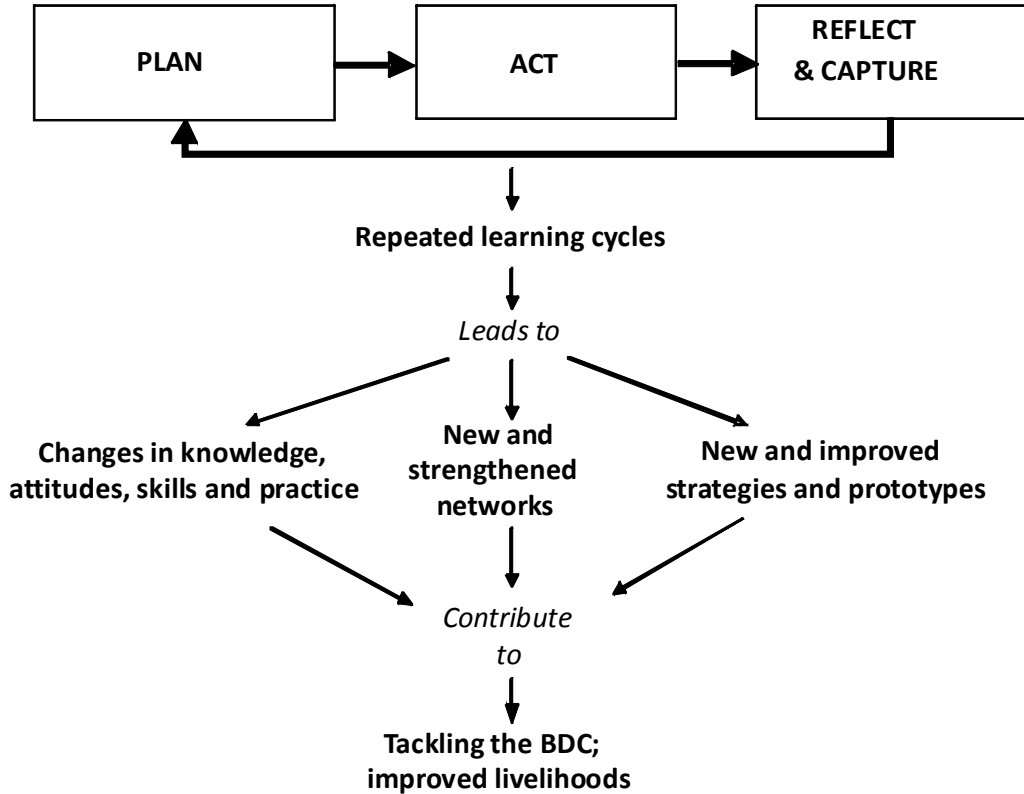
These reflection workshops can be seen as the culmination of one set of experiential learning cycles and the beginning of others. If the reflections are well documented, they can be analyzed at the end of the project to provide insights into how prototypes and the strategies to develop them do, or do not, achieve developmental outcomes in different contexts. This is publishable research. The coordination projects will have a role to play in ensuring quality of the data used in evaluation and reflection processes. Coordination projects may also carry out data collection independently. For example, the coordination project might collect rounds of ‘most significant change’ stories to pick up unexpected consequences of BDC research (see Davis and Dart, 2005) to feed into the reflection cycles. The coordination project would also recommend and support ways of introducing thematic and gender perspectives into the design of data-gathering methods and reflection processes.

M&E and multi-stakeholder platforms

Working in multi-stakeholder platforms is seen as a main mechanism by which BDC research programs ensure research relevance and uptake (CPWF MTP 2009). The way this mechanism works is shown in

Figure 4. Stakeholders regularly come together to reflect on implementation of past plans, make sense of and capture the results and make new plans. The same repeated learning cycles are described in Figure 3, with the reflection workshops being where stakeholders reflect, capture and plan anew. Hence, stakeholder reflection on progress along BDC impact pathways an activity that would work to strengthen the multi-stakeholder platforms with which the CPWF will work. BDC coordination projects are responsible coordinating BDC M&E and BDC engagement in multi-stakeholder platforms.

Figure 4: Logic model that shows how participatory evaluative reflection, in the context of a multi-stakeholder platform, contributes to BDC impact

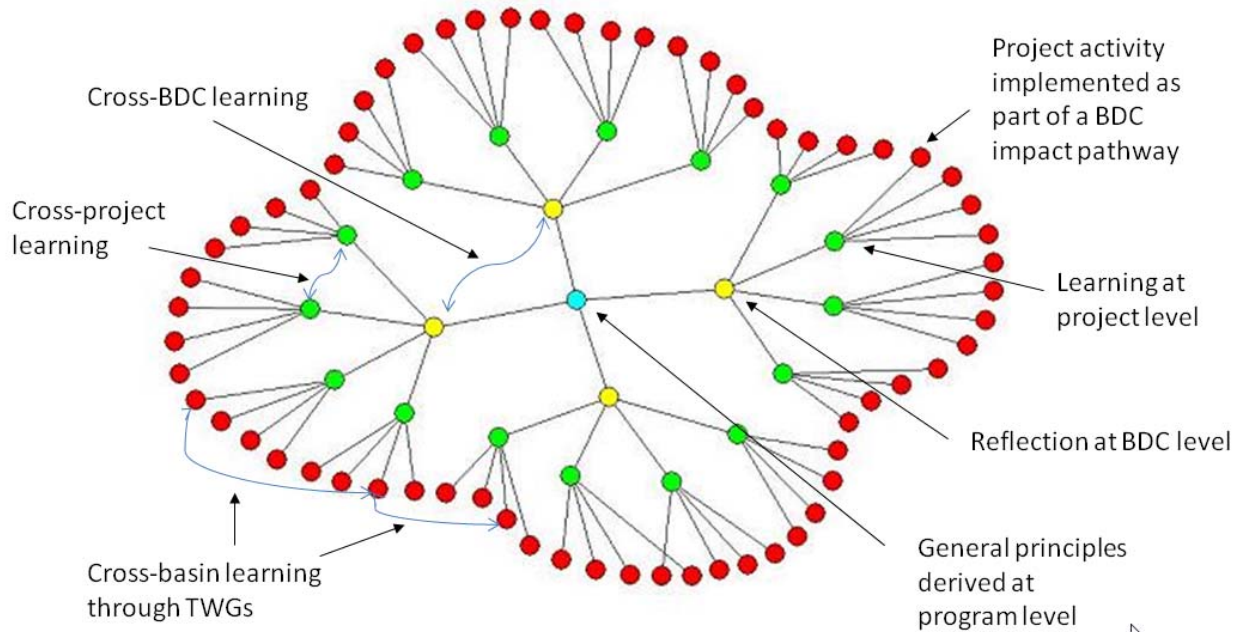


Cross-Case Learning

Setting up BDC impact pathways in the same way across BDCs allows for easier cross-case comparison and learning between BDCs and projects. The idea of cross-case learning is captured in Figure 5 which shows the CPWF as a learning network, where the connections between nodes are information exchange relationships through which learning can take place. The figure shows the network experiencing the different contexts in which the CPWF BDCs work through the implementation of on-the-ground project activities. This experience is reported in the first instance to project leaders who make sense of it as part of keeping their respective projects aligned with agreed BDC impact pathways. Periodically the Basin Leader holds reflection workshops (or equivalent events) in which the BDC project leaders report on their respective activities as part of a collective evaluation of progress towards achieving the BDC vision and the need for course adjustments (i.e., the process shown in Figure 3). Information on these meetings, including lessons learned and adjustments made, is sent to the CPWF MT and secretariat where the information is used for a number of purposes including the evaluation of progress against the program markers shown in Figure 1. The IID team would carry out a periodic

synthesis of lessons-learned as part of impact research into how research does and does not achieve outcomes and impacts in different development contexts. Figure 6 also shows cross-basin learning between people working on similar activities in different basins linked together through participation in TWGs.

Figure 5: Cross project and BDC learning



Note: Original diagram (without labels) borrowed from Rick Davies

To encourage learning and reflection between Basin Leaders, and to help ensure the quality of information reaching the CPWF MT and Secretariat, it is proposed that the CPWF adopt a 'rolling reporting' approach developed by IDRC. The approach would work as follows:

- 1) Agree BDC impact pathways in the Inception Workshop and the parts that projects will play in their implementation
- 2) After six months the Evaluator and Information Manager support BLs carrying out a first reflection. A reflection worksheet would be sent to the BLs for them to fill out, in consultation with their project leaders, prior to interviews carried out by the Evaluator and IM. The purpose of the interviews will be to ask follow up questions and help ensure the quality of the reflection process.
- 3) Subsequently BLs would interview each other as part of documenting the reflection process so as to maximize cross-BDC learning.
- 4) BLs would be expected to hold at least an annual BDC meeting with stakeholder participation (i.e., preferably as part of the BDC's contribution to working in a multi-stakeholder platform, see Figure 4), so as to engage in a full participatory impact pathways analysis.

Table 3 summarizes much of the discussion so far in terms of who needs to know what from program- and project-and-TWG-level M&E for accountability and for programmatic improvement.

Table 3: Summary of information needs and how they will be met in the CPWF's proposed M&E strategy (KEQs = key evaluation questions)

| Who needs to know | For accountability | For adaptive management / learning for program improvement |
|--|---|--|
| <u>Program-level M&E</u> - CPMT - Donors - CPWF community (for internal and external recognition) | <i>KEQs:</i> - Is the program adding value? - Are funds being properly spent? <i>Approaches / Sources of Info:</i> - M&E of progress against program markers (incl. impact assessment and network evaluation) - Six-monthly BDC reporting - Six-monthly (?) TWG reporting | <i>KEQs:</i> - Is the program adapting to emerging opportunities and threats? - Is the program performance improving? <i>Approaches / Sources of Info:</i> - M&E of progress against program makers (esp. core value markers) - Evidence of TWG interaction and learning - Most significant change - Rolling reporting - Changes in program funding levels |
| <u>Project and TWG level M&E</u> - Basin Leader - TWG Leader - Project Leaders - Principal Scientists - Key stakeholders - TWG communities of practice | <i>KEQs:</i> - Is the BDC research program contributing to tackling the BDC? - Are projects delivering on agreed outputs and outcomes? - Is the TWG producing generalizable knowledge? - Are funds being properly spent? <i>Approaches / Sources of Info</i> - M&E of progress along impact pathways (incl. adoption studies / social research) - Six-monthly project reporting based on milestone plans | <i>KEQs:</i> - Is BDC performance improving? - Is the BDC adapting to emerging opportunities and threats? - Is the TWG contributing to cross-basin learning? <i>Approaches / Sources of Info:</i> - M&E of progress against program makers - M&E of progress along impact pathways - Evaluation of quality of project, BDC and TWG learning processes, and the actions that result (through rolling reporting) - Number of course changes requested by projects and the quality of justification |

Impact Assessment

Participatory impact pathways analysis during the lifetime of the BDC research programs will monitor, evaluate and document progress along evolving impact pathways. According to SPIA strategic guidance on ex-post impact assessment this is 'good practice' because it provides a solid foundation for high quality and plausible impact assessment (Walker et al. 2008). In the book *RealWorld Evaluation* Bamberger et al. (2006, p.39) say that "while program theory models can be used in all evaluations, they are particularly useful for real world evaluations to identify critical areas and issues on which limited evaluation resources or time should focus." NONIE, the network of networks on impact evaluation have recently issued guidelines on carrying out impact evaluation, one of which is "carefully articulate the theories linking interventions to outcomes".²

According to Patton (2008), from several decades of learning how to measure development effectiveness:

² <http://www.worldbank.org/ieg/nonie/guidance.html>

- Evaluation should be rigorous, use methods that are appropriate to the development situation, those conducting the evaluation should have evaluation expertise, including the competence to use mixed methods and triangulate data from different sources, and adherence to the professional standards of evaluation.
- **Less is more** when it comes to doing evaluation, meaning it is better to do a smaller number of high quality evaluations than a large number of weak evaluations, weak because they stretch beyond available resources and capacity.
- Building evaluation capacity in development settings is, itself, a form of development, so that evaluation is not just done to people but is also done with them, and leaves behind not only findings but also an increased capacity to engage in ongoing M&E – and a commitment to do so.

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